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Tropospheric GMI Discussion

Thanks to Bryan Duncan, and the GMI core team

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Tropospheric model

- GSFC v1 available in Sept. 04
- Harvard set of comparisons are available
- Objective criteria plots are available
- Tracer runs available in Oct. 04
- Very preliminary analysis done by JAL
- Prather analysis of MOZAIC H₂O, temp
- Do we have all the diagnostics available that people need?
- Tendency files do not have everything to look at the budget in a region.
- Missing: 3-d advection, change in tracer mass, loss (for tracer runs)

What hasn't been done, for first papers

- Analysis of chemical budgets
- Careful analysis of NO_y budget (Bob Chatfield)
- Further analysis of tracer runs to understand reasons for differences between simulations
- Who is going to do what in the near term??
- v 1.5 (all aerosol fields) will be used for first publication (all aerosol fields)
- Tracer runs will not change

First tropospheric papers - on 4x5 runs

- Model description - Jose, Bryan
- Evaluation with obs. - Logan
- NO_y family - Chatfield
- H₂O/temp - Prather
- HCs - Yuhang
- Chem. budget for ozone, HO_x etc - Jose, Logan
- Analysis of tracer runs to diagnose causes for differences in results - Logan, who else

Future trop. work

- Are there issues with implementation of convection in present runs (raised by Daniel)
- Simulations with new lightning param.
- New met. fields - implementation issues
 - priorities, 5 yr FVGCM, fields for TRACE-P
 - issue of resolution - 2x2.5 vs. 4x5
- New chemistry, emissions?
- Evaluation with satellite data
- Interactive aerosols
- Priorities?